

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **BSI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
7/9/2015

API No. 15  
023-20793-0100

Company Rosewood Resources, Inc.		Lease Zwegardt		Well Number 34-19H	
County Cheyenne	Location SWSE	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 7/30/2007		Plug Back Total Depth 4241'		Packer Set at	
Casing Size 7"	Weight 23#	Internal Diameter 6.366	Set at 1622'	Perforations 1622' MD	To 424' MD Open Hole
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations Open Hole	To
Type Completion (Describe) Single (Horizontal)		Type Fluid Production Dry Gas		Pump Unit or Traveling Plunger? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1338'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-9		20 15 at 9:50		(AM) (PM) Taken 7-10	
Well on Line: Started 7-10		20 15 at 10:05		(AM) (PM) Taken 7-11	
		20 15 at 10:05		(AM) (PM)	

### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (P <sub>m</sub> )	Pressure Differential in Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>r</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>r</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						168	182.4				
Flow						60	74.4			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>b</sub> ) (F <sub>p</sub> ) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						3		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>s</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P<sub>o</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_

(P <sub>s</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> divided by: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	LOG of formula 1. or 2. and divide by: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	Backpressure Curve Slope = "n" ----- Assigned Standard Slope	n x LOG $\left[ \frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)

Open Flow Mcf @ 14.65 psia Deliverability Mcf @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct. Executed this the 18 day of December, 20 15.

**KCC WICHITA**

*[Signature]*  
For Company

Witness (if any)

APR 07 2016

For Commission

Checked by

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I declare under penalty of perjury under the laws of the state of Kansas that I am authorized to request exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Rosewood Resources, Inc. and that the foregoing pressure information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon available production summaries and lease records of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.

I hereby request a one-year exemption from open flow testing for the Zweygardt 34-19H gas well on the grounds that said well:

(Check one)

- is a coalbed methane producer
- is cycled on plunger lift due to water
- is a source of natural gas for injection into an oil reservoir undergoing ER
- is on vacuum at the present time; KCC approval Docket No. \_\_\_\_\_
- is not capable of producing at a daily rate in excess of 250 mcf/D

I further agree to supply to the best of my ability any and all supporting documents deemed by Commission staff as necessary to corroborate this claim for exemption from testing.

Date: 12/18/15

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Signature: \_\_\_\_\_

Title: \_\_\_\_\_

*Janell Martiny*

Production Assistant

**Instructions:** If a gas well meets one of the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under **OBSERVED SURFACE DATA**. Shut-in pressure shall thereafter be reported yearly in the same manner for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption **IS** denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.

W2410

Zweygart 34-1911

St. Francis

St. Francis

Flow

July-15

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2015		122	135	6	0	0	0	0	
7/2/2015		121	134	6	0	0	0	0	
7/3/2015		121	133	5	0	0	0	0	
7/4/2015		121	132	5	0	0	0	0	
7/5/2015		121	132	6	0	0	0	0	
7/6/2015		117	130	5	0	0	0	2	
7/7/2015		117	130	4	0	0	0	0	
7/8/2015		117	129	3	0	0	0	16	
7/9/2015		118	175	0	0	0	0	24	
7/10/2015		168	186	0	0	0	0	14	
7/11/2015		155	153	2	0	0	0	0	
7/12/2015		131	145	4	0	0	0	0	
7/13/2015		128	143	6	0	0	0	0	
7/14/2015		127	140	6	0	0	0	0	
7/15/2015		127	139	6	0	0	0	0	
7/16/2015		122	137	6	0	0	0	0	
7/17/2015		120	136	5	0	0	0	0	
7/18/2015		121	135	5	0	0	0	0	
7/19/2015		121	134	5	0	0	0	0	
7/20/2015		120	133	5	0	0	0	0	
7/21/2015		117	132	2	0	0	0	2	0 need .250 plate?
7/22/2015		117	130	3	0	0	0	0	
7/23/2015		117	129	3	0	0	0	0	
7/24/2015		115	128	4	0	0	0	0	
7/25/2015		115	128	3	0	0	0	0	
7/26/2015		115	127	4	0	0	0	0	
7/27/2015		112	126	2	0	0	0	0	
7/28/2015		112	125	3	0	0	0	0	
7/29/2015		112	124	2	0	0	0	0	
7/30/2015		112	123	1	0	0	0	0	
7/31/2015		112	122	1	0	0	0	0	

Total

118

0

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Zweygardt 34-19H

St. Francis

St. Francis

Flow

August-15

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2015		108	121		2	0	0	0	
8/2/2015		107	120		2	0	0	0	
8/3/2015		106	119		2	0	0	0	
8/4/2015		105	118		2	0	0	0	
8/5/2015		104	117		0	0	0	0	
8/6/2015		103	116		1	0	0	0	
8/7/2015		102	115		1	0	0	0	
8/8/2015		102	115		0	0	0	0	
8/9/2015		101	114		0	0	0	0	
8/10/2015		100	113		0	0	0	0	
8/11/2015		99	112		0	0	0	0	
8/12/2015		98	111		0	0	0	0	
8/13/2015		95	108		1	0	0	0	
8/14/2015		95	108		1	0	0	0	
8/15/2015		94	107		0	0	0	0	
8/16/2015		93	106		0	0	0	0	
8/17/2015		92	105		0	0	0	0	
8/18/2015		104	117		0	0	0	0	
8/19/2015		121	134		0	0	0	0	
8/20/2015		100	113		2	0	0	0	
8/21/2015		90	103		3	0	0	0	0 switched plate from .375 to .250
8/22/2015		89	102		4	0	0	0	
8/23/2015		88	101		5	0	0	0	
8/24/2015		86	99		5	0	0	0	
8/25/2015		85	98		5	0	0	0	
8/26/2015		84	97		5	0	0	0	
8/27/2015		83	96		5	0	0	0	
8/28/2015		82	95		5	0	0	0	
8/29/2015		81	94		4	0	0	0	
8/30/2015		80	93		4	0	0	4	
8/31/2015		79	92		4	0	0	0	

Total

63

0

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Zweygardt 34-19H

St. Francis

St. Francis

Flow

September-15

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
9/1/2015		82	95		3	0	0	0	
9/2/2015		78	91		5	0	0	0	
9/3/2015		77	90		5	0	0	0	
9/4/2015		76	89		4	0	0	0	
9/5/2015		76	89		4	0	0	0	
9/6/2015		75	88		4	0	0	0	
9/7/2015		73	86		3	0	0	0	
9/8/2015		72	85		3	0	0	0	
9/9/2015		73	86		3	0	0	0	
9/10/2015		70	83		4	0	0	0	
9/11/2015		69	82		3	0	0	0	
9/12/2015		68	81		3	0	0	0	
9/13/2015		67	80		3	0	0	0	
9/14/2015		67	80		3	0	0	0	
9/15/2015		66	79		3	0	0	0	
9/16/2015		65	78		3	0	0	0	
9/17/2015		64	77		2	0	0	0	
9/18/2015		63	76		1	0	0	0	
9/19/2015		61	74		2	0	0	0	
9/20/2015		60	73		2	0	0	0	
9/21/2015		60	73		2	0	0	0	
9/22/2015		59	72		1	0	0	0	
9/23/2015		58	71		0	0	0	0	
9/24/2015		0	71		0	0	0	0	
9/25/2015		0	71		0	0	0	0	
9/26/2015		0	71		0	0	0	0	
9/27/2015		0	71		0	0	0	0	
9/28/2015		0	71		0	0	0	0	
9/29/2015		0	71		0	0	0	0	
9/30/2015		0	71		0	0	0	0	
10/1/2015		0	0		0	0	0	0	

Total

66

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